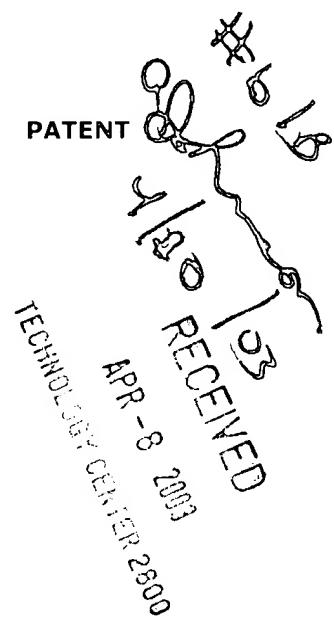


IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: M. Shimada et al. : Art Unit: 2872
 Serial No.: 09/935,027 : Examiner: E. Cherry
 Filed: August 22, 2001 :
 For: OPTICAL ELEMENT AND :
 METHOD OF FABRICATION :
 THEREOF



RESPONSE TO
OFFICE ACTION DATED DECEMBER 24, 2002

Assistant Commissioner for Patents
 Washington, D.C. 20231

SIR:

Responsive to the Official Action dated, December 24, 2002, please amend the above-identified application as follows:

IN THE CLAIMS:

Please replace claims 1, 4, 6, 7, 8, 11, 12, 13, 14, 15, and 16 with the following claims:

1. (Amended) An optical element comprising:
 2. a substrate having a channel for an optical waveguide; and
 3. a material which has a refractive index higher than that of said substrate and is
 4. filled in said channel for optical waveguide or is disposed on said substrate;
 5. wherein the refractive index in a part of said material varies substantially
 6. periodically or is substantially continuously monotone increasing or decreasing in the
 7. direction of light propagation.

1. (Amended) An optical element comprising:

2. a substrate having or not having a channel for an optical waveguide; and

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01 FC:1201 84.00 OP
 02 FC:1202 18.00 OP